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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LEYSON, JOSEPH S

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

10/06/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/501,605	Applicant(s) OURIEV, BORIS	
	Examiner JOSEPH LEYSON	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 27-30 is/are pending in the application.
- 4a) Of the above claim(s) 24 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 and 27-30 is/are rejected.
- 7) ☒ Claim(s) 14 and 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species A, drawn to a die and claim 23, in the reply filed on May 27, 2008 is acknowledged. The traversal is on the ground(s) that claims 23, 24 and 25 depend from claim 1 and therefore unity of invention is present, and that there is no requirement for claims to have all the same limitations for unity of invention. This is not found persuasive because unity of invention is not solely dictated by claim dependency and because, while there is no requirement for claims to have all the same limitations, the claims must be linked as to form a single general inventive concept. Species A, B and C, drawn to claims 23, 24 and 25, respectively, do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Species A requires a die which is not required by Species B or C; Species B requires a filter which is not required by Species A or C; and Species C requires a diecasting machine which is not required by Species A or B.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 24 and 25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 27, 2008.

Claim Objections

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3. Claims 14 and 16 are objected to because of the following informalities: in claim 14, line 3, "it has" should be deleted for proper grammar. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 19, 20 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 19 recites "the first and/or second signal output" which lacks antecedent basis making it unclear to what it refers. The examiner suggests making claim 19 dependent upon claim 18 which first discloses the second signal output.

Claim 29 recites "at least one of the following shapes: spherical, polyhedral, bar-shaped, in particular cylindrical or prismatic" which is unclear as to its scope. The examiner suggests deleting "in particular".

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-16, 22, 23 and 27-29 are rejected under 35 U.S.C. 102(b) as being anticipated by Gielow et al. (US 2,765,153).

Gielow et al. (US 2,765,153) teach a machine (i.e. figs. 1 and 2; col. 2, line 25, to col. 4, line 17) for machining or processing a conveyable material, in particular a pourable or pasty mass or a loose material, comprising at least one outlet section 23 (or 12) with at least one outlet, through which the conveyable material to be machined or processed can be transported along a conveying direction, wherein the at least one outlet section 23 forms at least one partial area of a channel of the machine, and is moveably mounted relative to the channel of the machine (i.e., by oscillation), the at least one outlet section 23 being coupled with at least one source for oscillations (i.e., figs. 3-6), by means of which it can be made to mechanically oscillate relative to the channel of the machine, and at least one outlet section in the channel of the machine is a volumetric section of the channel filled with vibratable collision elements (i.e., col. 3, lines 41-57, wherein vibratable liners are placed within the outlet section; or col. 3, lines 58-62, wherein the oscillating devices, such as those shown in figures 3-6, are distributed within the outlet section; these vibratable collision elements would form as dense a package as possible with hollow spaces therebetween, would vary in size and/or shape, and would have at least one of following shapes: spherical, polyhedral, bar-shaped, cylindrical or prismatic). Resilient devices 13, 14 are used to mount the at least one outlet section relative to the channel of the machine. Dampening devices are arranged between the at least one outlet section 12 and the channel of the machine, and the conveyable material acts as the dampening means (i.e., in fig. 1, note the space between tubes 5 and 12 which fills with conveyable material which would act as dampening devices). The at least one outlet section 12 and the channel of the machine

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are decoupled in terms of oscillation (i.e., by the resilient and dampening devices mentioned above). At least one source (i.e., figs. 3-6) can impart to the at least one outlet section 23 oscillations of a kind that exhibit a tangential and/or normal component relative to an inner surface of the at least one outlet facing the conveyable material. The at least one outlet section includes several outlet sections 3, 23, 24 sequentially arranged in at least one partial area of the channel of the machine along the conveying direction of the channel. At least some of the several sequential outlet sections can be spaced apart along the conveying direction (i.e., by the resilient devices 13, 14; or by the outlet sections defined only by elements 3 and 23). The several outlet sections are identical to each other (i.e., col. 3, lines 11-15; wherein "at least one cylindrical tube 23"). At least some of the several outlet sections 3, 23, 24 are different from each other (fig. 2). The several outlet sections are capable of being made to oscillate identically to or differently from each other (i.e., col. 3, line 73, to col. 4, line 15). The at least one source for mechanical oscillations is a vibrator (i.e., figs. 3-6), and the mechanical oscillations are dampened, forced oscillations of the at least one outlet section. The at least one source (i.e., figs. 4 and 5) for mechanical oscillations is a striker that generates dampened collision excitations of the at least one outlet section. The at least one source for mechanical oscillations includes several sources (i.e., figs. 3-6; col. 3, lines 25-30) for mechanical oscillations. The at least one source for mechanical oscillations can be actuated independently of the operating status of the machine (i.e., figs. 3-6). The several sources for mechanical oscillations can be actuated separately from each other (i.e., figs. 3-6; col. 3, lines 25-30). The channel of the machine and the

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at least one outlet of the outlet section run horizontally (i.e., figs. 1 and 2). The machine is an extruder, and the at least one outlet section 3 is a die 3, in particular an extrusion die 3, of the extruder (i.e., figs. 1 and 2).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 17-20 rejected under 35 U.S.C. 103(a) as being unpatentable over Gielow et al. (US 2,765,153) in view of Pettit (US 3,733,059).

Gielow et al. (US 2,765,153) disclose the machine substantially as claimed as mentioned above, except for the limitations of instant claims 17-20.

Pettit (US 3,733,059) discloses an extruder including rheological control means having a plurality of devices 20B, 21B, 22B located along a conveyable material flow direction for acquiring rheological properties of the conveyable material in order to generate signals at signal outputs that characterize the physicochemical, in particular rheological properties of the material flowing along the extruder, wherein the signals of the signal outputs are compared with those reference signals that characterize specific rheological properties, wherein feedback takes place within a control circuit as a function of the result from comparing the signals to activate at least one source¹⁴ for modifying the rheological properties (i.e., col. 1, line 24, to col. 3, line 65).

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It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the apparatus of Gielow et al. (US 2,765,153) with rheological control means, as disclosed by Pettit (US 3,733,059), because such a modification would enable feedback control of sources which modify the rheological properties of the material, such as the at least one source for mechanical oscillations which modifies the rheological properties of the material.

10. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gielow et al. (US 2,765,153) in view of Barainsky (US 3,400,428).

Gielow et al. (US 2,765,153) disclose the machine substantially as claimed as mentioned above, except for the limitations of instant claim 21.

Barainsky (US 3,400,428) discloses a vertical extruder (see figure).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the extruder of Gielow et al. (US 2,765,153) to be vertical because it is well known and conventional in the art that extruders can also be vertically oriented, as disclosed by Barainsky (US 3,400,428).

11. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gielow et al. (US 2,765,153) in view of Gearing (US 3,529,188).

Gielow et al. (US 2,765,153) disclose the machine substantially as claimed as mentioned above, except for the limitations of instant claim 30.

Gearing (US 3,529,188) discloses an electro-magnetic vibrator including at least one part consisting of an electrically conductive material, and a source for oscillations is a source for electromagnetic oscillations, wherein the electrically conductive collision

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elements can be excited by the generated electromagnetic alternating fields to mechanical oscillations and/or movements (col. 1, line 24 to col. 2, line 66).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the vibrator of Gielow et al. (US 2,765,153) with an electro-magnetic vibrator, as disclosed by Gearing (US 3,529,188) because Gielow et al. (US 2,765,153) discloses that the vibrator can be a magnetomotive vibrator (i.e., col. 3, lines 36-41).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Little (US 2,101,031) and Torigai et al. (US 3,619,429) are cited as of interest to show the state of the art.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH LEYSON whose telephone number is (571)272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert B. Davis/
Primary Examiner, Art Unit 1791
9/30/08

/J. L./
Examiner, Art Unit 1791